

AL. 2. 2008-169

C. 2

QUICK FACTS

ELEVENTH
EDITION

about
alcohol,
tobacco,
other drugs,
and problem
gambling

AADAC



Digitized by the Internet Archive
in 2015

QUICK FACTS

ELEVENTH
EDITION

**about
alcohol,
tobacco,
other drugs,
and problem
gambling**

PREFACE

Quick Facts provides easy-to-read answers to frequently asked questions about alcohol, tobacco, other drugs, problem gambling, and related issues in Alberta. It does not intend to be the last word, but rather a starting point for learning more about these issues.

Contents

Alcohol

What is alcohol?.....	7
What happens to alcohol in the body?.....	7
Are there differences in how alcohol affects men and women?.....	7
What are the immediate effects of drinking alcohol?.....	8
What is low-risk drinking?.....	9
Is drinking good for your health?.....	10
What are the long-term effects of chronic problem drinking?.....	10
What is the difference between problem drinking and alcoholism?.....	12
How many people in Alberta have a drinking problem?.....	12
Is alcoholism a disease?.....	13
What are the warning signs of a drinking problem?.....	13
Is problem drinking hereditary?.....	13
Do certain types of people develop alcohol-related problems?.....	14
Does the type of alcohol consumed affect the chance of developing problems?.....	14
What is fetal alcohol spectrum disorder or FASD?.....	14
What is fetal alcohol syndrome or FAS?.....	15
How much alcohol can a pregnant woman safely drink?.....	15

Adolescents and Alcohol

What is the legal drinking age across Canada?.....	16
What is AADAC's position concerning the legal drinking age?.....	16
What is the trend in drinking among teens?.....	16
Are there differences in the treatment needs of adolescents and adults?.....	17

Impaired Driving

What are the drinking and driving laws in Canada?.....	18
What are the penalties for drinking and driving offences that cause bodily harm?.....	19
What are the penalties for drinking and driving offences causing death?.....	19
In Alberta, how many traffic collisions involving injuries are alcohol-related?.....	19

In Alberta, how many drinking teenage drivers are involved in casualty collisions?	19
How many impaired driving charges occur each year in Alberta?	20

Alcohol Consumption and Sales

How much do Albertans drink?	21
How much do Albertans spend on alcohol?	22
How much alcohol is sold each year in Alberta?	22

The Family and Problem Drinking

What is the impact of living in a family with an alcohol-dependent person?	23
How does alcohol abuse affect the family?	23
How does a parent's drinking problem affect the children?	24
How does problem drinking affect the spouse?	24
Should family members seek help?	24
What help is available for the family members affected by alcohol-related problems?	25
Is legal protection available to the family of a problem drinker?	25

Cannabis

What are the short-term effects of cannabis use?	27
What are the long-term effects of cannabis use?	27
How many people use cannabis?	28
What is the law in Canada concerning cannabis?	29
How many drug offences are cannabis-related?	29
How does AADAC view cannabis?	29

Tobacco

What is in a cigarette?	30
What are the short-term effects of smoking tobacco?	31
What are the long-term effects of smoking tobacco?	31
How does a pregnant woman's smoking affect the fetus?	31
What is second-hand smoke (environmental tobacco smoke)?	32
What is passive or involuntary smoking?	32
What are the risks associated with passive smoking?	32
Why is using smokeless tobacco considered dangerous?	33
How many deaths are related to smoking tobacco?	34
What is the Alberta smoking rate, aged 15 and older?	34

Cocaine

What is cocaine?.....	35
How is cocaine used?.....	35
What are freebase and crack cocaine?.....	35
What are the short-term effects of cocaine use?	35
What are the long-term effects of cocaine use?.....	36
Is crack more dangerous than cocaine?	36
Are cocaine and crack addicting?.....	37
How many people use cocaine?.....	37
How many drug offences are cocaine-related?	37

Caffeine

What is caffeine?	38
How much caffeine do various products contain?	38
What are the short-term effects of caffeine use?.....	38
How much caffeine is too much?.....	39

Solvents/Inhalants

What types of products contain solvents or inhalants that are used as drugs?.....	40
What are the short-term effects of solvent or inhalant use?.....	40
What are the long-term effects of solvent or inhalant use?	40
Can solvent or inhalant use be fatal?	41
Who uses solvents or inhalants?	41
What is methyl alcohol?.....	41

Other Drugs

What are amphetamines?.....	42
What are tranquillizers?.....	43
What are barbiturates?.....	43
What are steroids?	44
What is ecstasy (MDMA)?.....	44
What are hallucinogens?.....	45
What are opioids?	46
What is methadone?.....	47

Problem Gambling

What is problem gambling?.....	49
What are the warning signs of a gambling problem?	50

How many Albertans gamble? 51

How many teens in Alberta gamble? 51

What is the legal gambling age in Alberta? 51

How many problem gamblers are there in Alberta? 51

How many AADAC clients receive treatment for gambling only? 52

What are the three most common gambling activities
AADAC clients are involved in? 52

How much revenue does the Alberta Government get
from gambling? 52

Social Costs of Substance Use and Gambling Problems

How many deaths are related to substance use? 53

What types of costs are associated with workplace substance use
and gambling problems? 53

How many hospitalizations are related to substance use? 54

How does substance use affect legal costs and crime? 54

What other costs are associated with substance use
and gambling problems? 55

AIDS

What is AIDS? 57

How is HIV transmitted? 57

Who is at risk for contracting HIV infection? 57

How many people have died of AIDS? 58

How can HIV be treated? 58

**Treatment and Prevention of Substance Use
and Gambling Problems**

What is AADAC’s treatment and prevention philosophy? 59

How are AADAC services organized? 59

What services does AADAC offer? 60

What is Alcoholics Anonymous? 60

Is abstinence the only answer? 61

Alcohol

What is alcohol?

- Alcohol is a beverage made by fermenting or distilling grains and fruit. A glass of wine, a bottle of regular beer, and 43 ml of hard liquor all have the same amount of alcohol (or ethanol) and act the same in your body.

What happens to alcohol in the body?

- Alcohol is absorbed partially through the stomach and mainly through the intestine into the bloodstream. Once there, alcohol is carried to all parts of the body, reaching the brain almost immediately. It freely crosses the placenta between a pregnant woman and her fetus.
- The alcohol continues to circulate in the bloodstream until it is broken down by the liver, and leaves the body through breath, sweat, and urine. The liver breaks down, or metabolizes, alcohol at a constant rate. It takes between one and two hours for an adult to metabolize a standard drink.

Are there differences in how alcohol affects men and women?

- Yes. Women tend to feel the effects of alcohol more quickly, and suffer liver, heart, and brain damage sooner than men. In general, men have a higher ratio of water to fat in their bodies than women do. Alcohol dissolves much better in water than in fat. Thus, alcohol is more diluted in a man's body, making men less affected by alcohol than women are.
- Women and men also have different levels of enzymes that help with absorption and metabolism of alcohol. These differences may help to explain why women experience harmful effects from smaller amounts of alcohol than men do.

What are the immediate effects of drinking alcohol?

- The short-term effects of drinking depend on how much alcohol is in the bloodstream. The amount of alcohol in the blood is called the blood alcohol concentration (BAC) or blood alcohol level (BAL). BAC depends on many factors, including how much and how quickly alcohol is consumed, the drinker's size and gender, and whether there is food in the stomach. For example, a small woman who quickly has three drinks on an empty stomach is likely to have a much higher BAC than a large man having three drinks while eating dinner.
- At a BAC of .04 (that is, 0.04 grams of alcohol per 100 ml of blood), most people begin to feel relaxed, happy, and less self-controlled. Although small amounts of alcohol usually produce feelings of relaxation and well-being, the drinker's mood and environment can greatly affect their emotional response. Alcohol can also deepen feelings of depression and anger. Even though alcohol is a central nervous system depressant, early effects of drinking may include increased activity and decreased inhibition. These effects result from a depression of brain centres that control behaviour. Reaction times, dexterity, and perception of distance and pain can be impaired even at low BACs.
- At a BAC of .06, judgment is impaired and people are less able to make rational decisions about their capabilities. Slurred speech and co-ordination can also occur. Emotions may be exaggerated. Operating machinery can be dangerous. At .08, drinkers have greater problems with perception, judgment and co-ordination. They are legally impaired and may not operate motor vehicles.
- At a BAC of .10, judgment, co-ordination, reaction time and memory are even more impaired. By .30, loss of consciousness may occur, and above .40, breathing may stop and death can result.
- Heavy drinkers who have developed tolerance to alcohol's effects may not react to the same degree. But tolerance to large amounts of alcohol is an early warning sign for alcohol dependence.

What is low-risk drinking?

Most Canadian adults are responsible drinkers who drink at safe levels that do not cause problems. This is called “low-risk drinking.” Research and clinical experience have shown that heavy drinking greatly increases the risk of injury, health and social problems, and alcohol dependence.

The definition of “low-risk” and “high-risk” drinking for individuals and society has been debated for a long time. After years of clinical research, however, the Centre for Addiction and Mental Health (CAMH) developed the following recommended Guidelines on Low-Risk Drinking.

- Weekly alcohol intake should be limited to 14 standard drinks for men and nine standard drinks for women.
- All standard drinks have the same amount of alcohol. One standard drink equals 13.6 grams of alcohol. A standard drink is defined as
 - one 341 ml (12 ounce) bottle of regular strength beer (5% alcohol)
 - one 142 ml (5 ounce) glass of table wine (12% alcohol)
 - one 43 ml (1.5 ounce) shot of liquor (40% alcohol)
- It is best to consume no more than two standard drinks on any day. People exceeding this level should take precautions to avoid injuries and other problems.
- Drinking slowly, waiting at least one hour between drinks, and taking alcohol with food and non-alcoholic beverages help to avoid intoxication.
- People who should not use alcohol, or should drink less than these maximum amounts include
 - people with certain health problems, like high blood pressure, liver disease or mental illness
 - people taking certain prescription and over-the-counter medications, like sedatives, sleeping pills, painkillers, and cough and cold medicine

- people with a personal or family history of serious drinking problems
- women who are pregnant, are trying to conceive or are breast feeding
- people who are operating vehicles such as automobiles, motorcycles, boats, snowmobiles, all-terrain vehicles or bicycles
- people who need to be alert: for example, while working with machinery or dangerous equipment, while engaging in challenging physical activities or when responsible for the safety of others or public order

Is drinking good for your health?

Low-risk alcohol use can help prevent some types of heart disease. Doctors, however, do not generally recommend that people start drinking for these beneficial effects, which can also be achieved through less risky methods such as increased exercise, improved nutrition, and smoking cessation. Drinking more than moderate amounts can contribute to serious injury and disease.

What are the long-term effects of chronic problem drinking?

- Heavy long-term drinking damages the stomach lining, which leads to vomiting, diarrhea, abdominal pain, and internal bleeding. It makes ulcers worse. Decreased appetite can lead to malnutrition.
- Blackouts may occur from the effect of alcohol on the central nervous system. Blackouts are periods when a person is conscious and functioning, but is later unable to recall what he or she did or said.
- Chronic problem drinking damages the brain, causing problems with memory, judgment and abstract thinking. If drinking stops, some of these problems can be reversed. Heavy drinking and inadequate nutrition, especially vitamin B1 deficiency, can result in Wernicke's encephalopathy, causing drowsiness, confusion,

difficulty walking, and abnormal eye movements. If untreated, Korsakoff's syndrome develops, resulting in a lack of short-term memory, poor co-ordination and serious disorientation. Many Korsakoff patients make up stories that have no basis in fact. Most require institutionalization.

- Heavy drinking raises blood pressure and interferes with blood clotting, which increases the risk for hemorrhagic stroke. Heavy drinking also damages the heart muscles and causes irregular heartbeat, which can result in sudden death.
- In men, heavy alcohol use can cause impotence, reduced testicle size, loss of body hair and breast growth. In women, it can cause menstrual irregularities and infertility.
- Alcohol use increases the risk of cancer of the mouth and throat. The risk of these cancers is greatly increased if the drinker also smokes. It is also associated with cancer of the liver, pancreas, stomach, large intestine, rectum, and breast.
- Alcohol is especially harmful to the liver. An early symptom of problem drinking is the accumulation of fat in the liver. If drinking continues, alcoholic hepatitis (serious liver inflammation) results. These two conditions are reversible if drinking stops. Continued drinking leads to alcoholic cirrhosis, a chronic inflammatory disease in which liver cells are replaced by scar tissue. Cirrhosis is a leading cause of death among chronic problem drinkers.
- Chronic drinking reduces bone density and defences against infectious diseases such as pneumonia and tuberculosis.
- Heavy drinkers develop tolerance to large amounts of alcohol. This means they must consume increasingly harmful amounts of alcohol to achieve the desired effects. Eventually physical dependence occurs as the body gets used to having alcohol in the system.
- Withdrawal occurs if intake is suddenly stopped. Symptoms may include loss of appetite, nausea, anxiety, sleeplessness, irritability, confusion, sweating, and tremors (shakes). Convulsions and hallucinations may occur. Delirium tremens (DTs) is the most



severe effect, and is characterized by extreme agitation and disorientation, high body temperature, accelerated heart rate, and terrifying hallucinations (seeing or feeling things such as bugs crawling on skin).

What is the difference between problem drinking and alcoholism?

- The two terms are often used to mean the same thing when referring to a person with alcohol-related problems. “Problem drinking” may be less stigmatizing than the word alcoholism. Problem drinking is sometimes used if a person has less advanced problems and can still choose how much to drink. Alcohol dependence generally involves a person developing tolerance to alcohol, and then withdrawal symptoms when not drinking. It leads to ongoing inappropriate use of alcohol, which causes increasingly serious problems in a person’s physical or mental health, or work, family, social, or spiritual life.
- In general, if alcohol use is negatively affecting any aspect of a person’s life, then that person is a problem drinker.

How many people in Alberta have a drinking problem?

An answer to this question is very complex. Any method used to calculate the number is just an estimate.

Health Canada assessed alcohol dependence using a set of questions that reflect psychiatric diagnostic criteria (those of the most recent version of the Diagnostic and Statistical Manual of Mental Disorders of the American Psychiatric Association, known as DSM-IV-TR). Based on the results from the Canadian Community Health Survey 2002 (cycle 1.2), an estimated 640,632 (2.6%) Canadians (aged 15 and older) reported a level of alcohol use suggestive of dependence. In Alberta, comparative figures show 3.5% of the population, or 85,524 Albertans, reporting a level of alcohol use suggestive of dependence.

Is alcoholism a disease?

Defining alcoholism as a chronic, progressive disease was an important step in getting treatment available for people with alcohol problems. Rather than being viewed as a moral weakness or personal inadequacy, alcohol dependency could be seen as a treatable condition.

Looking beyond the disease concept, alcohol dependency can be viewed more broadly as a complex condition with psychological, social and medical aspects.

What are the warning signs of a drinking problem?

- Loss of control: going beyond one's limits, drinking more often, gulping drinks, secret drinking.
- Loss of power over one's life: problems with friends, family, work, school, finances, or legal matters as a result of drinking.
- Emotional problems: anxiety, guilt, or depression over alcohol use.
- Physical symptoms: hangovers, blackouts, and gastrointestinal problems.

Is problem drinking hereditary?

- Many factors contribute to alcohol problems, including the genetic and psychological make-up of the individual as well as cultural and sociological factors.
- Studies have shown that alcoholism runs in families. Children of alcoholics have a greater risk of developing alcohol-related problems. However, these findings do not prove that alcoholism is inherited, since both the environment and genetic factors contribute to the development of alcohol abuse.
- The current thinking among researchers is that heredity does play a role in the development of alcohol problems in some people. But alcoholism per se is not thought to be inherited. Rather, it seems that an underlying susceptibility is inherited. Additional research is needed to determine how, and for which people, heredity affects the development of alcoholism.

Do certain types of people develop alcohol-related problems?

- Anyone who drinks can become alcoholic. It is not possible to reliably predict on the basis of any single factor who will develop alcohol-related problems.
- Studies of adopted children with a birth parent who was alcoholic show that heredity plays a role in the development of alcohol abuse for some people.

Does the type of alcohol consumed affect the chance of developing problems?

No. The form of alcohol makes no difference. The eventual effect of the pure alcohol contained in all types of alcoholic beverages is the same. The same amount of pure alcohol (13.6 g) is found in a 12 ounce (341 ml) bottle of regular beer, 1.5 (43 ml) ounces of distilled spirits, or a 5 ounce (142 ml) glass of wine.

What is fetal alcohol spectrum disorder or FASD?

- Fetal alcohol spectrum disorder (FASD) is a general term used by researchers and physicians to refer to the entire range of physical abnormalities and problems in functioning caused by exposure to alcohol in the womb. It is not a diagnosis; it is simply a term to capture the broad range of effects resulting from damage to the fetus when the mother drinks. FASD describes a range of disabilities and acts as the umbrella term for diagnoses such as fetal alcohol syndrome (FAS), partial FAS (pFAS), alcohol-related neurodevelopmental disorder (ARND), and alcohol-related birth defects (ARBD).
- Except for the specific diagnosis for FAS, it is almost impossible to conclusively identify FASD because the different physical or behavioural problems related to drinking during pregnancy may also be caused by other factors.

What is fetal alcohol syndrome or FAS?

- FAS can only be diagnosed by a specially trained doctor.
- Infants with FAS are smaller than other newborns and have distinctive facial features such as flat noses and small eyes. They also have some brain damage that usually results in mild to severe mental retardation.

How much alcohol can a pregnant woman safely drink?

No safe limit of alcohol consumption by a pregnant woman has yet been established. Experts recommend that women abstain from alcohol during pregnancy and when trying to conceive.

Adolescents and alcohol

What is the legal drinking age across Canada?

In Alberta, Manitoba and Quebec the legal drinking age is 18 years. In all other Canadian provinces and territories, the legal drinking age is 19.

What is the position of the Alberta Alcohol and Drug Abuse Commission (AADAC) concerning the legal drinking age?

The Alberta Alcohol and Drug Abuse Commission (AADAC) recognizes the importance of drinking age legislation as an environmental strategy intended to prevent youth from purchasing and consuming alcohol.

- The issues involved in raising the legal drinking age are complex and do not lend themselves to easy resolution by any single measure. Research on the effects of raising the legal drinking age in other jurisdictions has produced mixed and inconclusive results.
- The legal drinking age in Alberta is consistent with the age of majority.

What is the trend in drinking among teens?

- According to a study done in 2005, 63.4% of Alberta students (grades 7 to 12) had consumed alcohol at least once in the previous year.
- In terms of how often teens drink, this same study found that, of students who consumed alcohol in the previous year, more than half (56.2%) used alcohol relatively infrequently (once per month or less often). More than one-third (36.7%) reported drinking at levels considered hazardous or harmful (with Alcohol Use Disorders Identification Test scores of 8 or higher).

- The study found that males were more likely than females to report alcohol consumption but were equally likely to report hazardous or harmful drinking.
- Alcohol use was also found to increase by grade level.

Are there differences in the treatment needs of adolescents and adults?

- Although most teens in Alberta are healthy and do not have problems with alcohol or other drugs, more than 4,824 youth under the age of 18 received treatment services from AADAC during the 2005/2006 fiscal year (most on an outpatient basis).
- Like adults, teens face the challenge of developing skills and abilities needed to manage their lives successfully without depending on alcohol or other drugs.
- Teens may not have as long a history of heavy alcohol or drug use as some adults but, because of their age and developmental stage, they may be especially vulnerable to the harmful consequences of such use. Troubled adolescents require programs and staff that are sensitive to their developmental level and the issues that they are facing. These may include issues of identity, independence, and peer group membership. Involvement of family or other supportive adults may also be especially important.
- Specialized treatment services are available in Alberta for teens. Local AADAC offices can refer clients to these services.

Impaired driving

What are the drinking and driving laws in Canada?

- In Canada, it is an offence for a person to operate a motor vehicle if his or her ability to do so is impaired by alcohol or other drugs, or if that person has a blood alcohol concentration exceeding the legal limit.
- The legal limit for impaired driving in Canada is .08. A driver is considered legally impaired if there are 80 mg (.08 grams) of alcohol per 100 ml of blood in the body. This measurement is called BAC (blood alcohol concentration) and is determined by analyzing breath or blood samples.
- It is possible to be charged with impaired driving while under the legal limit. For example, if a person drives dangerously or has an accident after drinking, it could be judged that alcohol impaired his or her ability to operate the motor vehicle safely.
- The Government of Canada revised the Criminal Code in 1985 to establish minimum penalties that provinces must apply when someone is convicted of impaired driving. Penalties for impaired driving were increased with the proclamation of Bill C-82 in 1999 and Bill C-18 in 2000. They are
 - first conviction—minimum fine of \$600 and prohibition from driving for three years
 - second conviction—minimum 14 days in jail and prohibition from driving for two to five years
 - third and later convictions—minimum 90 days in jail and prohibition from driving for five years
- The provincial government also has established penalties for impaired driving, other than those outlined in the Criminal Code. Under the Alberta Traffic Safety Act (2000), impaired drivers face the following administrative sanctions:

- 24-hour immediate licence suspension
- vehicle impounded
- automatic one-month licence suspension for a novice driver
- automatic six-month licence suspension where alcohol-related operation of a vehicle results in bodily harm or death

What are the penalties for drinking and driving offences that cause bodily harm?

- A maximum of 10 years in prison and up to a 10-year prohibition from driving.

What are the penalties for drinking and driving offences causing death?

- A conviction for impaired driving causing death carries a maximum prison term of 14 years and up to a 10-year prohibition from driving. If criminal negligence is involved, the penalty could be life in prison and a lifetime prohibition from driving.

In Alberta, how many traffic collisions involving injuries are alcohol-related?

- According to Alberta police collision reports, in 2005, 19.2% of all drivers in fatal crashes had consumed alcohol or were impaired.
- In that same year, 5.3% of all Alberta drivers involved in serious injury accidents (non-fatal) had been drinking or were impaired.

In Alberta, how many drinking teenage drivers are involved in casualty collisions?

- Traffic accidents are the leading cause of death among teens. Inexperience, alcohol, and high speeds are all factors that contribute to this result.
- In Alberta in 2005, 10% of drinking drivers involved in casualty collisions were 19 years or younger.



How many impaired driving charges occur each year in Alberta?

- In 2006, 11,698 Albertans were charged with impaired driving. In the past decade, Alberta has consistently had one of the highest rates of impaired driving among all provinces and territories.
- As a result of an impaired driving conviction, 5,988 Albertans had their driver's licence suspended in 2005/2006.
- Adolescents are not more likely to drink and drive. Teens account for about 5% of licensed drivers and about 5% of those charged with impaired driving.

Alcohol consumption and sales

How much do Albertans drink?

- In 2004, 80% of adult Albertans (15 years and older) were current drinkers.

TABLE 1: Per capita consumption of alcohol for Albertans 15 years or older

YEAR	LITRES OF ABSOLUTE ALCOHOL
1989/1990	9.8
1990/1991	9.3
1991/1992	8.9
1992/1993	8.5
1993/1994	8.7
1994/1995	8.4
1995/1996	8.2
1996/1997	8.1
1997/1998	8.5
1998/1999	8.7
1999/2000	8.6
2000/2001	8.6
2001/2002	9.0
2002/2003	8.6
2003/2004	8.9
2004/2005	9.0

- The term absolute alcohol refers to pure alcohol, which is not changed by the amount of water or other additives found in different alcoholic beverages in Alberta.
- Per capita consumption of alcohol for Albertans 15 years or older decreased from 9.8 litres of absolute alcohol in 1989/1990 to 8.1 litres of absolute alcohol in 1996/1997. Since then, per capita consumption has been increasing. In 2004/2005, Albertans drank the equivalent of 529 bottles of beer per person. Albertans tend to drink more than the national average, which was 7.9 litres per capita in 2004/2005.
- This figure is based on population data and alcohol sales volume from all Albertans aged 15 years or older. Some people drink less or not at all, while others drink more.

How much do Albertans spend on alcohol?

- In 2005/2006, net revenue to the Alberta government from alcohol sales amounted to \$596.7 million.

How much alcohol is sold each year in Alberta?

- In 2004/2005, more than 295 million litres of beer, wine and spirits were sold in Alberta, most of which (237 million litres) was beer.

The family and problem drinking

What is the impact of living in a family with an alcohol-dependent person?

- While research has pointed out some harmful effects often experienced by individual family members as well as by the family unit as a whole, it is important to realize that these vary from person to person and family to family. It's also important to note that negative effects are not necessarily permanent.
- Researchers caution against generalizing about the adverse effects of living with an alcohol-dependent person for several reasons. First, it is uncertain whether various problems seen in children of alcoholics remain through to adulthood. Second, few differences have been identified between the effects of living in a family with an alcoholic and those of living in a family with a parent who has another type of problem, such as mental illness. Finally, it is generally found that the negative effects of living with an alcoholic may be offset by protective influences in the family environment, or can diminish after the alcoholic goes into recovery.

How does alcohol abuse affect the family?

With time, families tend to develop certain ways of communicating and coping with the alcohol-dependent family member. While these coping strategies may help the family to operate more smoothly and get along better, they may also let the alcohol dependence continue. Ironically, substance use can also become a way of coping with the stress and problems alcohol abuse has created in the family.



How does a parent's drinking problem affect the children?

- A parent's drinking problem often creates an unstable family environment. Family members are often not very close and may not provide emotional support for each other. As well, parents may not effectively discipline their children or provide them with training in basic life skills.
- Younger children and teens who grow up with an alcoholic parent may be more likely to show antisocial behaviour and have problems such as delinquency, skipping school, aggressiveness, hyperactivity, and temper tantrums.
- Adult children of alcoholics may be at higher risk for mental health and behavioural problems including depression, substance abuse, poor self-esteem, and anxiety.

How does problem drinking affect the spouse?

Spouses of alcoholics tend to try many different coping strategies as the drinking problems progress and often gradually withdraw after repeated attempts to stop their spouse from drinking. The alcoholic and spouse may show little affection for each other, communicate by arguing, and have difficulty resolving problems together.

Should family members seek help?

- Because individual and family reactions to living with a person with a drinking problem vary widely, it is very important to consider each person's unique situation and to treat the alcohol problems within a family context.
- Once family members begin relating to each other on the basis of inappropriate roles based on drinking behaviour, it is difficult to change the situation from inside the family system. Outside help from someone trained to deal with alcohol-related problems is recommended so that family members can learn to interact with each other in healthy ways.

What help is available for the family members affected by alcohol-related problems?

- Help is available through a number of agencies and organizations, including Al-Anon, Alateen and AADAC.
- Al-Anon is a self-help group of family and friends of problem drinkers who have joined together to support and share with each other their experiences in an attempt to gain a better understanding of alcohol-related problems.
- Alateen is a group similar to Al-Anon, but is for young people aged 12 to 20.
- Alcoholics Anonymous, a program that is available for the problem drinker, is discussed under the Treatment section of Quick Facts.
- AADAC provides counselling services to families and friends of problem drinkers who are trying to gain an understanding of the process of addiction, their role in it, and how to overcome its effects.

Is legal protection available to the family of a problem drinker?

- The Criminal Code of Canada provides protection to persons who are being physically abused. Protective provisions under this code include assault charges and peace bonds.
- A person charged with assault must appear in court to plead guilty or not guilty. Depending on the plea, the case may go to trial and a fine or jail term may be imposed as a sentence.
- A peace bond is a promise to the court by the abuser to maintain good behaviour. The execution of a peace bond requires both partners to appear in court where a judge decides whether a peace bond should be ordered.
- The Alberta Protection Against Family Violence Act (2000) contains provisions for court-ordered emergency protection for family members who have experienced violence. The Act allows for immediate protection of the claimant (spouse, child,

government ward in care, or anyone related by blood, marriage or adoption and living in the same household) without notice to the respondent (family member against whom the order is sought or granted). The court order can include provisions for (1) restraint preventing the respondent from contacting or communicating with the claimant; (2) granting the claimant and other family members exclusive occupation of the residence for a specified period of time; (3) a peace officer to remove the respondent and his or her belongings from the residence; (4) the seizure and storage of any weapons that have been used to threaten or commit family violence; and (5) any other conditions deemed necessary by the judge or designated justice of the peace.

Cannabis

- Cannabis is a mood-altering drug that comes from the Cannabis sativa plant.
- Cannabis is the general term used to describe marijuana, hashish and hashish oil.
- The cannabis “high” comes from the chemical THC (delta-9-tetrahydrocannabinol).

What are the short-term effects of cannabis use?

- The three major areas of functioning that are affected by cannabis use are the central nervous system, the cardiovascular system, and psychological functioning.
- Effects on the nervous system include impairment of intellectual functioning, short-term memory, and learning ability.
- Physical co-ordination and the performance of complex visual tasks also become impaired. In amounts commonly used, cannabis can impair a person’s ability to engage in activities such as driving a car, operating machinery, or flying a plane. When cannabis is used together with other drugs like alcohol, greater impairment occurs.
- Effects on the cardiovascular system include increased heart rate and changes in blood pressure.
- Effects on psychological functioning include feelings that range from well-being and exhilaration to anxiety and fear. In some cases, panic and disorientation may occur.

What are the long-term effects of cannabis use?

- Long-term effects of cannabis use are still under investigation. Dangerous effects seem to be associated mostly with heavy, chronic use.

- Smoking cannabis damages the lungs and contributes to such respiratory problems as chronic coughing and lung infections.
- Heavy marijuana smokers have lung damage similar to the kind found in tobacco smokers.
- Regular heavy users of cannabis develop tolerance (that is, a need for more drug to produce the same effect).
- Heavy, long-term use of cannabis can cause dependence.
- Withdrawal occurs when heavy use is abruptly stopped. Users may experience withdrawal symptoms, which include irritability, sweating, tremor, upset stomach and diarrhea.
- Effects of chronic, heavy use may include decreased motivation and interest, as well as difficulties with memory and concentration.
- Women who use cannabis regularly during pregnancy have increased risk for premature delivery and low-birth-weight infants.
- Children exposed to cannabis prenatally may have mild withdrawal symptoms at birth, and subtle behaviour and learning problems as they get older.

How many people use cannabis?

- Cannabis is the most popular illicit drug used in Canada and in Alberta. The rate of cannabis use has remained relatively stable through the mid 1990s, but recent surveys show that use has increased since then, especially among youth and young adults.
- In 2004, 15% of Albertans (aged 15 or older) reported using cannabis one or more times in the previous 12 months, and 3% were frequent users (one or more times per week).
- Among Alberta students (in grades 7 to 12) surveyed in 2005, 26.7% reported using cannabis one or more times in the previous 12 months.

What is the law in Canada concerning cannabis?

- Under Canada's Controlled Drugs and Substances Act, possession, production, trafficking, importing, and exporting of cannabis can result in fines and prison sentences up to life imprisonment. Conviction results in a criminal record.

How many drug offences are cannabis-related?

- In 2006, there were 96,164 drug offences in Canada; 61% were cannabis-related offences.
- In 2006, there were 8,707 drug offences recorded in Alberta; 52% were cannabis-related.
- In 2006, Canadian police forces seized 56,226 kg of marijuana (excluding plants), hash, and hash oil. The RCMP estimate that about 2.1 million marijuana plants were seized by police departments across the country.

How does AADAC view cannabis?

- AADAC recognizes that the use of illicit substances (including cannabis) adversely affects the health and well-being of many Albertans.
- AADAC supports all reasonable efforts to discourage the consumption of these substances, including actions to minimize the harmful consequences to individuals and society, provided these efforts do not create more serious problems than the actual use of the drugs.

Tobacco

What is in a cigarette?

- Cigarettes contain more than 4,000 chemicals, 50 of which are known to be cancer-producing agents called carcinogens.
- Carbon monoxide absorbed from smoking a single cigarette stays in the bloodstream for up to six hours. This forces the heart to work harder trying to supply the body with enough oxygen.
- Nicotine, one of the principal ingredients in tobacco, is classified as a drug. It is a stimulant that causes the heartbeat and blood pressure to increase. Nicotine is a highly addictive drug; withdrawal symptoms are a major reason it is so difficult to quit smoking.
- Tar consists of solid particles from cigarette smoke. It interferes with the normal exchange of oxygen and carbon dioxide in the lungs, and contributes to shortness of breath.
- Light cigarettes deliver as much tar, nicotine and carbon monoxide as regular cigarettes, much more than manufacturers claim. Recent evidence reveals that there is no difference in the risk of heart disease from smoking light or regular cigarettes. For this reason, companies are no longer permitted to market cigarettes under the “light” misnomer; however, the cigarettes still exist under various descriptors.
- Clove cigarettes, containing 30% to 40% cloves and 60% to 70% tobacco, contain almost twice the tar and nicotine of ordinary cigarettes. They can cause allergic and toxic reactions, lung congestion, asthma, and chest pain.
- Smokeless cigarettes contain nicotine and tobacco flavouring, but the user puffs on them without lighting them. Little is yet known about potential negative effects of this product.

What are the short-term effects of smoking tobacco?

- Smoking tobacco produces feelings of pleasure, stimulation, and relaxation. It causes increased heartbeat, blood pressure and blood sugar.
- New users can experience dry and irritated throat, coughing, and dizziness.
- Inhaled smoke irritates the air tubes and air sacs in the lungs. Harmful chemicals enter the bloodstream through the lungs.

What are the long-term effects of smoking tobacco?

- Long-term effects of tobacco use include heart disease, strokes, emphysema, chronic bronchitis, and aneurysms.
- Nicotine is a highly addictive drug. Heavy smokers have great difficulty stopping use. Withdrawal symptoms include irritability, craving, thinking and attention problems, sleep disturbance, and increased appetite. Research suggests there is a strong association between age of onset of smoking and nicotine dependence. People who begin smoking when they are teens, especially very young teens, tend to be more dependent than those who start smoking after age 20.

How does a pregnant woman's smoking affect the fetus?

- Newborn babies of mothers who smoked while pregnant often have low birth weight, are shorter in length, and have a small head circumference. Some studies link smoking during pregnancy with miscarriage and stillbirths. Some research also suggests that smoking during pregnancy can lead to the child having learning and behaviour problems.
- In Alberta, sudden infant death syndrome (SIDS) is 1.4 to 4.4 times more common among babies whose mothers smoked during pregnancy.

What is second-hand smoke (environmental tobacco smoke)?

- Second-hand tobacco smoke is tobacco smoke in the air, composed of mainstream smoke (smoke exhaled by the smoker) and sidestream smoke (smoke released into the air by a burning cigarette or other tobacco product).
- Sidestream smoke accounts for 85% of tobacco smoke in the environment. All second-hand smoke contains 4,000 chemicals, 50 of which are known to cause cancer. Second-hand smoke has five times the amount of carbon monoxide and twice the amount of nicotine and tar of the smoke a smoker inhales.
- Second-hand smoke is classified as a Class A carcinogen.

What is passive or involuntary smoking?

- Passive or involuntary smoking occurs when non-smokers and smokers are exposed to second-hand smoke.
- Smokers are also exposed to their own second-hand smoke.

What are the risks associated with passive smoking?

- Passive smoking increases the risk of developing lung cancer and heart disease in non-smokers.
- Compared with the general population, non-smoking spouses of smokers have two to three times the risk of developing lung cancer.
- More than 800 non-smokers in Canada die each year from lung cancer and ischemic heart disease caused by exposure to second-hand smoke.
- Children whose parents (particularly their mothers) smoke are more likely to have bronchitis, pneumonia, ear infections, and asthma attacks than children of non-smoking parents.
- The risk of children dying from sudden infant death syndrome (SIDS) is increased if anyone in the house smokes.

- Exposure to second-hand smoke has been linked to low birth weight, which is linked to increased risk of respiratory illness.
- There is no ventilation system that is capable of completely eliminating second-hand smoke from indoor air.

Why is using smokeless tobacco considered dangerous?

- Smokeless tobacco contains more than 3,000 chemicals, 28 of which are known carcinogens.
- The amount of nicotine absorbed through smokeless tobacco is two to three times more than the amount delivered by a cigarette. A person who consumes eight to 10 dips or chews per day receives the same amount of nicotine as a heavy smoker who smokes 30 to 40 cigarettes per day.
- Most cigarettes have an average of 8.4 mg of nicotine per cigarette. But one dose of moist snuff has an average of 14.5 mg of nicotine, and one dose of chewing tobacco can have as much as 133 mg of nicotine.
- Smokeless tobacco also leads to leukoplakia, tooth abrasion and gum recession, and causes a multitude of other problems inside the mouth.
- Smokeless tobacco affects the cardiovascular system and may be associated with heart disease, stroke, and high blood pressure.
- Smokers and smokeless tobacco users display a number of notable similarities associated with cessation. They report essentially equivalent levels of nicotine exposure, nicotine dependence, craving, and difficulty in stopping tobacco use.
- Recent evidence also suggests that smokeless tobacco users and smokers experience similar levels of withdrawal severity upon quitting, and (as with smokers) the majority of smokeless tobacco users want to quit.

How many deaths are related to smoking tobacco?

- Tobacco use is considered the single most significant cause of preventable morbidity (disease) and mortality (death) in Canada and in most other developed countries.
- An estimated 37,209 Canadians, of which 3,023 were Albertans, died from tobacco-related illnesses in 2002.
- An estimated 17,427 Canadians died from tobacco-related cancers in 2002.
- An estimated 8,282 Canadians died from tobacco-related respiratory diseases in 2002.
- An estimated 10,275 Canadians died from tobacco-related cardiovascular diseases in 2002.

What is the smoking rate among Albertans aged 15 and older?

- In 2001, 25% of Albertans aged 15 and older smoked. In 2006, 21% reported smoking. This overall 4% decrease in the number of Albertans who smoke is equivalent to about 100,000 fewer smokers.
- In 2001, 24% of youth aged 15 to 19 smoked. In 2006, the rate was 15%, a 9% overall reduction in smoking among this age group since 2001.
- In 2001, 34% of young adults aged 20 to 24 smoked. In 2006, the rate was 30%, a 4% overall reduction in the smoking rate in this age group since 2001.

Cocaine

What is cocaine?

- Cocaine is a powerful central nervous system stimulant. It is prepared from the leaves of the *Erythroxylum coca* bush found primarily in South America. After coca paste is extracted from the leaves, it is purified to produce an odourless, white crystalline powder called cocaine hydrochloride. Often the white crystalline powder is diluted with sugar, cornstarch, talcum powder, etc.

How is cocaine used?

- Cocaine is often sniffed or snorted through the nostrils, where it is absorbed through the mucous membrane of the upper respiratory tract.
- Other methods of use include smoking or injecting.

What are freebase and crack cocaine?

- Freebase cocaine is cocaine that has been chemically treated, through an extraction process using flammable solvents, to remove the hydrochloride portion of the cocaine. The resulting freebase vaporizes more readily than regular cocaine and can therefore be smoked.
- Crack is a freebase form of cocaine that can be smoked. It is made by adding baking soda to cocaine and heating the mixture. The dried residue forms clumps known as crack or rock, which are then smoked.

What are the short-term effects of cocaine use?

- Short-term effects of cocaine use include increased alertness and high energy, euphoria followed by agitation and anxiety, decreased appetite, exaggerated reflexes and pupil dilation.

- Additional effects include increased blood pressure, rapid heartbeat and breathing, sweating and pallor.
- At higher doses, users may experience shallow breathing, erratic or violent behaviour, tremors, twitching, hallucinations, chest pain or pressure, blurred vision, fever, nausea, and vomiting, muscle spasms, convulsions and death. Heart attacks, seizures, headaches, and strokes can also result from cocaine use.

What are the long-term effects of cocaine use?

- Chronic cocaine use may lead to agitation, excitability, depression, mood swings, and hypersensitivity to sensory stimuli, sometimes resulting in hallucinations. Other effects include sleep disorders, eating disorders, and sexual dysfunction.
- If used during pregnancy, cocaine can cause complications such as spontaneous abortions. Heavy use during pregnancy is associated with physical defects in the baby, low fetal weight, and stillbirth.
- Users who inhale cocaine may destroy tissue in the nose. Those who smoke it can develop respiratory problems. People who inject cocaine, especially those who share injecting equipment, are at risk for bacterial and viral infections including hepatitis and HIV (the virus that causes AIDS).
- Chronic, heavy cocaine use can cause severe psychiatric disorders such as paranoid psychosis. At first, users feel good (euphoria). With continued use, they can begin to feel increasingly uncomfortable (dysphoria), and finally become very suspicious and lose contact with reality (paranoid psychosis).

Is crack more dangerous than cocaine?

- When smoked, crack reaches the brain very rapidly. The sharp rise in cocaine blood levels from crack can put the user at increasingly greater risk for acute toxic overdose reactions including seizures, high blood pressure, heart attack and stroke.

Are cocaine and crack addicting?

- Studies indicate that cocaine is physically and psychologically addicting. The craving for the drug experienced by regular users is thought to be due to physiological changes in brain chemistry brought on by the drug. This craving makes it very difficult for users to stop using cocaine.
- When crack is smoked, it reaches the brain very rapidly and produces a dramatic but short-lasting euphoria, followed by an extreme low (“crash”). This sequence favours repeated use of the drug, which can quite quickly result in addiction. Another difference from regular cocaine is that crack is sold in smaller, less expensive amounts, so it is available to more users.

How many people use cocaine?

- Findings from the Canadian Addiction Survey (2004) indicated that 10.6% of Canadians (aged 15 and older) had used cocaine or crack at least once in their lives, and that 1.9% were current users (had used one or more times during the previous year).
- The same survey reported that use of cocaine or crack was higher in Alberta; of those aged 15 years or older, 2.4% were current users.
- In 2005, 4.2% of Alberta students (in grades 7 to 12) reported using cocaine in the past year and 2.2% said they had used crack.

How many drug offences are cocaine-related?

- In 2006, there were 22,074 cocaine-related drug offences in Canada. This represents 23% of total drug-related offences for that year.
- In 2006, 3,150 drug offences in Alberta were cocaine-related, representing 23% of all drug-related offences in the province.
- In 2005, Canadian police forces seized 1,557 kg of cocaine hydrochloride, 965 kg of cocaine base, and 10 kg of crack.

Caffeine

What is caffeine?

- In its pure form, caffeine is a white crystalline powder. It is found in coffee beans, tea leaves, cocoa leaves, and kola nuts. It is one of the most widely used drugs in the world.

How much caffeine do various products contain?

- Depending on the strength, a cup of percolated or brewed coffee contains between 40 and 180 mg of caffeine. Instant coffee ranges from 30 to 100 mg of caffeine per cup.
- Specialty coffee shops may serve coffee containing twice as much caffeine as the usual range.
- Again depending on strength, a cup of tea contains between 10 and 90 mg of caffeine.
- Most cola drinks contain 30 to 40 mg of caffeine (per 355 ml can).
- A typical chocolate bar contains 20 to 25 mg of caffeine.
- Coffee-flavoured ice cream or yogurt contains as little as 5 mg and as much as 100 mg of caffeine per serving.
- Stay-awake pills contain 100 to 250 mg of caffeine.
- The amount of caffeine in headache and cold medicines varies; the amount is indicated on the product label.
- Over-the-counter medications containing caffeine include Anacin[®], Instantine[®], Tylenol #1[®], Excedrin[®], 222s[®], Atasol-8[®] and Dristan[®].

What are the short-term effects of caffeine use?

- Caffeine is a stimulant. Short-term effects include mild mood elevation, increased sensory awareness and alertness, and postponement of drowsiness.

- Other effects include shortened sleep; decreased appetite; constriction of cerebral blood vessels; stimulation of cardiac muscles and respiration; and increased blood pressure, metabolic rate, urination, and body temperature.

How much caffeine is too much?

- Daily use in low doses of up to 300 mg (about three to four cups of coffee) in otherwise healthy adults does not appear to produce negative effects.
- High doses of 600 mg or more (the equivalent of six to eight cups of coffee) can produce chronic insomnia, anxiety, depression, gastrointestinal irritation, and rapid irregular heartbeat. Some people experience these unpleasant effects at lower doses.
- Caffeine has been shown to affect the body's calcium balance, reducing bone density and increasing the risk of osteoporosis.
- Although caffeine has not been proven to cause birth defects, pregnant women are advised to consume as little as possible. A growing body of evidence suggests caffeine can make it harder for women to get pregnant, increases the risk of miscarriage, and slows fetal growth.

Solvents/Inhalants

What types of products contain solvents or inhalants that are used as drugs?

- Many industrial, commercial and household products contain solvents that are commonly abused. They include gasoline, some types of glue and household cements, cleaning and lighter fluid, nail polish remover, paint, lacquer and varnish thinner, and some household cleaners.

What are the short-term effects of solvent or inhalant use?

- Early effects may include euphoria, dizziness, numbness, and weightlessness, followed by decreased motor co-ordination, muscle weakness, slowed reflexes, impaired judgment, visual disturbances, and ringing in the ears. Bizarre behaviour, perceptual distortions, and severe depression may occur.
- Other effects include increased heart rate, irregular heartbeat, headache, sneezing, coughing, nasal inflammation, respiratory depression, nausea, vomiting, and diarrhea.
- A prolonged period of inhalation can result in coma or seizures. Reduced oxygen supply to the brain can cause unconsciousness and brain damage.

What are the long-term effects of solvent or inhalant use?

- Many chronic solvent users have experienced psychological problems including apathy, mood swings, depression, and paranoid thinking. There is increasing evidence that brain damage occurs with continued heavy use.
- Other effects may include blood abnormalities and damage to the liver, kidneys, lungs, and heart.
- Children born to women who use inhalants may have growth and development problems.

Can solvent or inhalant use be fatal?

- One cause of death among solvent users is “sudden sniffing death.” Death results from heart failure brought about by a severely irregular heartbeat, usually associated with some stress or vigorous activity after inhaling the solvent.
- A plastic bag is often used to inhale the substance. If a user lapses into sleep or unconsciousness while a bag remains over the nose and mouth, there is a substantial risk of death from suffocation.
- Accidental or intentional overdose of solvents has resulted in a number of deaths.

Who uses solvents or inhalants?

- In Canada, solvent use occurs all across the country, in various ethnic and socio-economic groups, and in both urban and rural areas. Most commonly, users are young (between the ages of eight and 16) although some heavy users are older.
- In 2004, about 1.3% of Canadians and about 1.6% of Albertans (aged 15 or older) reported ever using solvents or inhalants.
- A 2005 survey of Alberta students (grades 7 to 12) showed that 3.3% used solvents and 2.7% used glue in the previous 12 months.
- Most young people who use solvents do so only on an occasional or experimental basis.

What is methyl alcohol?

- Methyl alcohol (methyl hydrate, wood alcohol) is used chiefly as an industrial solvent. Common household products that contain methyl alcohol include paint removers, antifreeze, and liquid fuel.
- Drinking an ounce or less of methyl alcohol can cause blindness, nerve damage, coma, convulsions, and death from respiratory arrest.
- Methyl alcohol is a very dangerous poison and cannot be made safe to drink. Some people may try to get high using products that contain this poisonous substance. However, they are poisoning themselves without getting the high they seek.

Other drugs

What are amphetamines?

- Amphetamines are a group of drugs that stimulate the central nervous system. These drugs produce short-term effects such as feelings of well-being, increased alertness and energy, and increases in heart rate and breathing rate. They can also cause shakiness, sweating, anxiety, headache, blurred vision, dizziness, irregular heartbeat, and chest pain. Some users experience feelings of power and superiority. Some become hostile and aggressive.
- Overdose can cause delusions, hallucinations, high fever, delirium, seizures, coma, stroke, heart failure, and death. Use with alcohol and other drugs is especially dangerous.
- Long-term effects may include sleep disturbances, anxiety, appetite suppression, and high blood pressure. Some users become paranoid and violent.
- Chronic use results in physical dependence and withdrawal symptoms when the drug use is stopped. Psychological dependence can occur even among regular low-dose users.
- In 2004, 6.1% of Albertans aged 15 or older reported using speed (amphetamines) in their lifetime.
- Methamphetamine is an amphetamine that was first synthesized in Japan in 1919. It can be ingested orally, by snorting, or by intravenous injection. Methamphetamine for smoking is re-crystallized to form large crystals known as “ice” or “crystal meth.”
- Among Alberta students (grades 7 to 12) surveyed in 2005, 1.9% reported using methamphetamine and 1.1% reported using crystal meth in the previous year.

What are tranquillizers?

- Tranquillizers are depressant drugs that slow down the central nervous system. They affect the body in a way that is similar to the effects of other depressants such as alcohol, solvents and barbiturates.
- Some common examples of tranquillizers used to relieve anxiety are Valium® (diazepam), Librium®, Ativan®, and Xanax®.
- Effects of tranquillizers vary with the particular drug, the dose, and how it is taken. Small doses produce a feeling of well-being and calm, loss of inhibition, relaxed muscle tension, reduced mental alertness, and mildly impaired co-ordination and balance. Larger doses often cause people to appear intoxicated, and to become drowsy and fall asleep. Driving motor vehicles and operating machinery should be avoided when taking tranquillizers. Long-term effects include irritability, nausea, headache, skin rash, weight gain, and impaired thinking, memory, and judgment.
- Tolerance develops with regular use, making increased doses necessary to produce the desired effect. Psychological and physical dependence can also occur. Withdrawal symptoms include sleeplessness, sweating, stomach cramps, agitation, tremors, delirium, convulsions, and even death.
- Among Alberta students (grade 7 to 12) surveyed in 2005, 1.5% reported using tranquillizers in the previous year.

What are barbiturates?

- Barbiturates are a group of central nervous system depressant drugs prescribed for sleeping and anxiety problems. Low doses of these drugs produce relaxation and mildly impaired cognitive and motor functioning. At high doses, effects range from severe impairment and intoxication to anesthesia, unconsciousness, and respiratory arrest.
- Examples include Nembutal® and Pentothal®.
- Among Alberta students (grade 7 to 12) surveyed in 2005, 1.1% reported using barbiturates in the previous year.

- When misused, barbiturates are highly dangerous. Tolerance occurs rapidly, so higher doses are needed to maintain desired effects. Higher doses can result in death from overdose. A user who stops using the drug suddenly can experience severe withdrawal symptoms.

What are steroids?

- Anabolic steroids are a group of drugs similar to the hormone testosterone.
- Short-term effects of anabolic steroid use include increased muscle bulk and strength, and masculinization of both sexes. Women who use steroids can experience increased body and facial hair, and menstrual irregularity. Men can experience testicular shrinking and impotence. Adolescents using anabolic steroids may have their growth prematurely and permanently stunted.
- Steroids are most often used by athletes wanting to improve their performance, especially in sports requiring strength and power. Increasingly, they are also used by adolescents and young adults, especially males, who want to improve their physical appearance.
- A 2002 school survey of Alberta students (grades 7 to 12) showed that 1.2% had used steroids in the previous 12 months.

What is ecstasy (MDMA)?

- Ecstasy is a drug that is structurally related to amphetamines or stimulants, but also has some hallucinogenic properties. Its chemical name is 3,4-methylenedioxymethamphetamine or, in short form, MDMA. It is known as a designer drug produced in underground laboratories.
- Ecstasy can produce mild intoxication, a sense of pleasure, and euphoria. As with stimulant use, users may feel full of energy and confidence. As well, ecstasy may cause sweating, increased blood pressure and heart rate, nausea, grinding of the teeth, jaw pain,

anxiety attacks, blurred vision, and vomiting. Strong negative effects may last for days or weeks from relatively small doses. These include depression, confusion, panic, insomnia, and convulsions.

- Use of ecstasy has been associated with raves, dance parties typically held in abandoned warehouses or outdoor locations that can hold large numbers of people. There have been some deaths associated with ecstasy use at raves. The combination of ecstasy use and exertion from dancing, heat, heavy sweating, and lowered fluid intake has resulted in dehydration and subsequent death.
- In 2005, Canadian police seized 457,127 dosage units of ecstasy compared to 10,000 in 1997 and 1.7 million in 2002.
- Among Canadians 15 and older surveyed in 2004, 4.1% reported using ecstasy at least once in their life. In Alberta, lifetime prevalence of use was 5.1%.
- Among Alberta students (grades 7 to 12) surveyed in 2005, 6.4% reported using ecstasy in the past year.

What are hallucinogens?

- Hallucinogens are drugs that affect a person's perceptions, sensations, thinking, self-awareness, and emotions.
- Lysergic acid diethylamide (LSD) is the most powerful of the known hallucinogens. Even in very small doses, its effects include changes in perception, mood, and thought. Hallucinations and perceptions of the senses can meld together. Users may experience a sense of wonder and joy, or they may feel anxious and fearful. In some cases, psychotic episodes can occur. These are characterized by bizarre behaviour, delusions, terror, and hallucinations.
- Tolerance to LSD develops quickly, so that with consecutive daily doses, no amount of the drug can produce desired effects. Only after a period of abstinence of three to four days does sensitivity return. Physical dependence on LSD does not appear to occur. Some users may become psychologically dependent.



- In 2004, 12.3% of Albertans (15 or older) surveyed reported using hallucinogens at least once during their lives. This is compared to 11.4% in Canada.
- Among Alberta students surveyed in 2005 (grades 7 to 12), 9.1% reported using hallucinogens and 2.2% reported using LSD in the past year.

What are opioids?

- “Opioid” is a term used to describe drugs that are derived from the opium poppy or are synthetic (man-made) but have similar properties. These drugs are also known as narcotic analgesics. Examples of opioids are morphine, codeine, oxycodone, and heroin.
- Opioids are particularly effective pain relievers (analgesics), which has led to their widespread medical use.
- Opioids can be swallowed, sniffed, smoked or injected intravenously.
- The feelings experienced when using opioids depend on the specific drug used, the amount used, how it is taken, and previous exposure of the body to these and other drugs. The most commonly reported effects are drowsiness, warmth, a sense of well-being and contentment, and detachment from pain and anxiety.
- Although heroin is the opioid most commonly associated with opioid-related problems, it is a relatively rare street drug in Alberta. Most illicit opioid use in the province involves over-the-counter opioids (e.g., Tylenol 1[®]) or prescription opioids (e.g., morphine, Percocet[®], Percodan[®], MS Contin[®]) that have been stolen or diverted from legitimate sources or obtained on prescription by faking injury or illness.
- Opioids are central nervous system (CNS) depressant drugs, and potentially fatal overdose can occur if a single excessive dose is taken by someone who does not have a tolerance for opioids, if a stronger dose than usual is taken, or if an opioid is taken in

combination with another CNS depressant such as alcohol, tranquilizers or barbiturates.

- Even when opioids are appropriately prescribed and consumed for legitimate reasons, physical dependency will occur over time, though this is not always problematic. In such cases, once the opioid medication is no longer required, the dose is slowly reduced to prevent the person from experiencing withdrawal.
- Some people who use opioids will become addicted to them as well as dependent on them. People addicted to opioids have a compulsive need to use, experience cravings, and will continue to use despite mounting negative consequences.
- Tolerance develops rapidly, as do both physical and psychological dependence.
- Withdrawal symptoms include high levels of discomfort similar to a severe case of gastric flu that will generally last for seven to 10 days, and insomnia which might take several weeks to subside.
- Students in grades 7 through 12 surveyed in 2005 reported very low levels of heroin (0.6%) and Oxycontin® (0.8%) use. Because of high sampling variability, these results should be interpreted with caution.

What is methadone?

- Methadone, an oral medication, is a synthetic opioid and has been used very effectively for over 40 years in the treatment of people addicted to other opioids.
- Methadone eliminates withdrawal and cravings without producing euphoria or sedation. People on methadone are able to function fully in all aspects of life.
- Tolerance to methadone develops slowly and a person can often stay on the same dose of methadone for many years.
- Methadone treatment is a well-researched form of treatment and has been found to improve physical and mental health, social functioning, quality of life, and pregnancy outcomes. It has also

been found to reduce/eliminate drug use, reduce mortality, reduce criminal activity, and reduce the transmission of infectious diseases such as HIV and hepatitis C.

- Methadone is also used medically as an analgesic (painkiller).
- AADAC operates an Opioid Dependency Program (clinics in Edmonton and Calgary) that offers methadone maintenance treatment for people addicted to opioids. A number of private clinics in Alberta also provide this treatment.
- In 2006, there were over 1,700 people receiving methadone treatment in Alberta.

Problem gambling

What is problem gambling?

- Problem gambling refers to any form of gambling behaviour that adversely affects family, personal, or vocational pursuits. It includes gambling that causes occasional problems as well as gambling that results in ongoing serious consequences. It may have a number of negative impacts on players, their families and friends, and the communities they live in.
- Problem gambling is a recognized psychiatric disorder characterized by (1) continuous or periodic loss of control over gambling behaviour, (2) preoccupation with gambling and with obtaining money to gamble, (3) irrational thinking, and (4) continuation of gambling behaviour despite negative consequences.
- Problem gamblers can experience decreased initiative, interests narrowed to gambling, and reduced feelings of self-worth. Common emotional reactions include depression, outbursts of rage, and feelings of being out of control. Problem gamblers can experience loneliness and alienation from family and friends. Physical consequences include stress-related conditions such as insomnia, digestive problems, and back or neck pain. Problem gamblers also experience withdrawal symptoms such as disorientation and short attention span. Some experience shaking, nausea and vomiting due to stress.
- The effects of problem gambling on the family may include interpersonal conflict, instability, separation or divorce, and disregard for the safety and care of children. The problem gambler may neglect responsibilities at home, work, or school.
- For communities, problems related to gambling can include criminal activity and lost productivity in the workplace.

What are the warning signs of a gambling problem?

Gambling problems can range from minor to severe. Here are some signs that a person may have a gambling problem:

- Spends large amount of time gambling. This allows little time for family, friends, or other interests.
- Begins to place larger, more frequent bets. Larger bets are necessary to get the same level of excitement.
- Has growing debts. The problem gambler is secretive or defensive about money and may borrow from family members or friends.
- Pins hopes on the “big win.” The problem gambler believes the big win will solve financial and other problems.
- Promises to cut back on gambling. The problem gambler is unable to reduce or stop gambling.
- Refuses to explain behaviour, or lies about it. The problem gambler may be away from home or work for long periods of time, or may make an unusually high number of personal telephone calls while at work.
- Feels frequent highs and lows. If unable to gamble, the problem gambler misses the thrill of the action and may be bad-tempered, withdrawn, or restless. During a winning streak, the gambler is on a high.
- Boasts about winning. The problem gambler loves to relive a win but will make light of losses when others express their concern.
- Prefers gambling to a special family occasion. The problem gambler may arrive late or miss such family events as birthdays or school activities.
- Seeks new places to gamble close to home and away.
- The problem gambler may insist that evenings out or even family vacations are at places where gambling is available.

How many Albertans gamble?

- According to a study released in 2002, 82.0% of adult Albertans (18 and older) are current gamblers. This compares to 90.3% who were current gamblers in 1994 and 87.4% in 1998.
- The vast majority of Albertans who gamble do so responsibly. They gamble for entertainment or for social reasons and do not bet more than they can afford to lose.

How many teens in Alberta gamble?

- The prevalence of problem gambling among adolescents is higher than the adult rate in Alberta, and is among the highest reported in similar studies done elsewhere in Canada.
- Results from The Alberta Youth Experience Survey (2005) showed that 62.6% of Alberta students (grades 7 to 12) had participated in one or more gambling activities in the previous year.
- This same survey also revealed that 2.4% of students were gambling at levels considered hazardous or problematic.

What is the legal gambling age in Alberta?

- The legal age for gambling in Alberta is 18.

How many problem gamblers are there in Alberta?

Since 1994, the prevalence of problem gambling in Alberta has remained stable at about 5%. Severe difficulties can include spending all the family savings and incurring immense gambling debts, loss of job, marital or family difficulties, criminal activities such as theft and embezzlement to finance gambling, and health problems such as depression.

- Among Aboriginal adults in Alberta, the prevalence of problem gambling is three times (17%) that of the general population (5%). Some research suggests the rate of problem gambling among Aboriginal adults is as high as 25%.



How many AADAC clients receive treatment for gambling only?

- In 2006/2007, 4% of AADAC clients sought treatment for gambling problems alone.

What are the three most common gambling activities AADAC clients are involved in?

- In 2006/2007, the most common gambling activities adult clients reported involvement in were playing the lottery (31%), buying instant win tickets (29%) and playing VLTs (26%).

How much revenue does the Alberta Government get from gambling?

In 2005/2006, Alberta Government revenue from VLTs, ticket lotteries and slot machines was \$1.3 billion. Around one-third of this revenue (\$575,087) came from VLTs and another third (\$574,731) came from slot machines.



Social costs of substance use and gambling problems

How many deaths are related to substance use?

- In 2003, there were 101 overdose deaths reported in Alberta.
- Substance-related deaths tend to be under-reported. The primary cause of death may be listed as something other than alcohol, tobacco or illicit drugs (i.e., illegal drugs such as marijuana, LSD, cocaine, opioid); it is often not recorded when these substances are secondary or contributing causes.
- In Alberta, as in the rest of Canada, motor vehicle accidents are the leading cause of alcohol-related deaths. Lung cancer (followed by chronic obstructive pulmonary disease and heart disease) causes the most tobacco-related mortality. The majority of illicit drug deaths result from suicide and drug poisoning.
- In 15% of deaths investigated in 2005, the Alberta Office of the Chief Medical Examiner listed use of alcohol or other drugs as a contributing factor or as underlying cause.

What types of costs are associated with workplace substance use and gambling problems?

- According to an AADAC study conducted in 2002, the estimated cost to employers of workplace substance use and gambling problems is \$74 million per year. The most significant cost identified by employers was lost productivity from absenteeism or work slowdowns.
- In 2002, over 184,000 (11%) Alberta employees reported using alcohol at work. Alcohol problems in the work force result in lower productivity, absenteeism, accidents at work, and lower work morale.

How many hospitalizations are related to substance use?

- The exact prevalence of substance-related problems among hospitalized patients is difficult to establish, and is underestimated in most studies. Prevalence varies from hospital to hospital, and among wards within hospitals.
- In 2004/2005, there were 7,844 alcohol-related and 8,737 drug-related separations from active care and psychiatric hospitals in Alberta.

How does substance use affect legal costs and crime?

- It is widely believed among police officials that a large proportion of crime is associated with the use of alcohol and other drugs. For crimes such as impaired driving, violation of provincial liquor regulations, and the possession, importation and trafficking of illicit drugs, there is a clear link to substance use. For other criminal behaviour (e.g., theft, assault, homicide) the role that alcohol or drug use plays is more difficult to determine.
- A recent study estimated that between 40 and 50 per cent of crimes committed by federal and provincial inmates in Canada can be attributed to substance use. According to this research, 54% of federal offenders were under the influence of alcohol or other drugs while committing their crimes, and 38% of inmates were assessed as dependent on alcohol, drugs or both.
- A substantial proportion of family violence is perpetrated in the absence of substance use. The majority of people who assault their partners do not have a drinking or drug problem. At the same time, Canadian justice statistics show that periodic heavy drinking is associated with elevated rates of spousal violence. Specifically, rates of spousal violence were found to be six times higher for people whose partners drank heavily than for those whose partners drank moderately or not at all.
- Canadian justice statistics also show that women (44%) are more likely to report that their partners had been drinking at the time of a violent incident than are men (33%) who have been victims

of spousal violence. Police do not always record substance use when investigating incidents of family violence. When substance use was recorded by Alberta police in 2003, 48% of all incidents of family violence involved alcohol, and in about one-quarter of the cases (24%) both parties were drinking.

- A study of University of Alberta students in 2000 revealed that in reports of unwanted sexual experiences, 54.2% of victims and 54.5% of perpetrators were under the influence of some form of intoxicant.
- In 2004, there were 75,994 alcohol and drug-related offences reported in Alberta. The greatest number were for non-sexual assault (37%), 33% were for disturbing the peace, and 15% were for impaired driving. Overall, 11% were drug-related offences.
- In Canada in 2003, drug offences represented 8% of all adult criminal court cases (4% for possession and 4% for trafficking) and 4% of cases processed in youth courts (2% for possession and 2% for trafficking).

What other costs are associated with substance use and gambling?

- Other social and economic costs associated with substance abuse arise for individuals and the communities in which they live. For example, substance use is a factor in many cases of suicide, long-term illness, property damage, and injury.
- In 2003, 22.1% of the suicides in Alberta were due to overdose.
- The Alberta medical examiner's office records information about gambling if a relative or friend mentions it, or if there is evidence of gambling at the scene of death. In 2003, approximately 1% of suicides in Alberta were gambling-related.
- Since 1979 when reporting began, 9% of diagnosed AIDS cases in Alberta have been attributable to exposure via injection drug use. In Alberta in 2005, 23% of all positive HIV tests listed injection drug use as the primary risk factor.



- Intravenous drug users commonly develop bacterial infections and collapsed veins as a result of repeated injections. The combination of lowered resistance and injection drug use increases the risk of contracting HIV and other infections (e.g., pneumonia, tuberculosis).
- Injection drug use is also the primary risk factor for hepatitis C. Estimates indicate that there are 5000 new hepatitis C infections in Canada each year, of which an estimated 60 to 90 per cent are due to injection drug use. In Alberta, current estimates suggest that about 75% of injection drug users are infected with hepatitis C.
- Alcohol use during pregnancy can result in fetal alcohol spectrum disorder (FASD), which has significant implications in terms of physical and social functioning. A comprehensive study of the incidence of FASD has yet to be completed in Canada, but the rate is estimated at 9 in 1,000 births with higher rates among Aboriginal populations.
- Serious consequences are often related to unsafe injection of drugs or to the way of life of the user. For example, users who can't afford their addiction may turn to crime (e.g., drug offences, theft). Other lifestyle factors include poor housing, malnutrition, untreated illnesses, and frequent use of other drugs, all of which result in a generally poor state of health and lowered resistance to infection.



AIDS

What is AIDS?

- AIDS (acquired immune deficiency syndrome) is a disease caused by a viral infection that weakens the immune system resulting in the development of life-threatening infections and/or cancers.
- AIDS is caused by the human immunodeficiency virus (HIV). The virus has been found in blood, semen, breast milk and urine. It has also been found in small amounts in saliva and tears and in other body fluids and tissues.
- AIDS is the later stage of HIV infection. During the early stage, patients may have no symptoms or they may develop less severe complications.

How is HIV transmitted?

- The virus is transmitted primarily through sexual contact, mainly by unprotected vaginal and anal intercourse.
- The virus is also transmitted through shared use of contaminated needles and syringes, particularly by injection drug users. Before the screening of the blood supply began in Canada in 1985, the virus was also transmitted through administration of infected blood products.
- The virus can also be transmitted from an infected mother to her newborn child.
- There is no evidence that HIV can be transmitted through ordinary social or occupational contact.

Who is at risk for contracting HIV infection?

- Sexually active homosexual men account for the majority of new HIV cases in Alberta. People who use drugs by injection are a second primary risk group (23% of HIV cases in 2006).

- Heterosexual partners of infected persons and children born to infected mothers are also at high risk.
- The risk of transmission to health care professionals appears to be low, but the infectious nature of the syndrome does call for strict compliance with infectious disease control procedures.

How many people have died of AIDS?

- As of June 30, 2006, there have been 20,493 cases diagnosed with AIDS, and 13,326 deaths from AIDS in Canada.
- The number of Canadians infected with HIV is increasing in all regions in Canada. The rise is particularly pronounced among women and Aboriginal people.

How can HIV be treated?

- There is still no cure for AIDS and no vaccine is yet available to prevent HIV infection.
- Medical treatment of HIV infections includes treatment with antiviral drugs, attempts to stimulate the immune system, antibiotic treatment of specific infections, and anti-cancer treatment for cancers associated with AIDS.
- Supportive counselling, information and drug treatment programs are important components of treatment for persons with HIV and those in high-risk groups.

Treatment and prevention of substance use and gambling problems

What is AADAC's treatment and prevention philosophy?

- AADAC's approach in treating and preventing addiction problems is to focus on the person and provide opportunities for the individual to build on his or her strengths and abilities.
- AADAC also focuses on the family and community to help them become better able to identify and deal with challenges associated with substance use and gambling.
- AADAC's mission is to make a difference in people's lives by assisting Albertans to achieve freedom from the harmful effects of alcohol, other drugs, and gambling.

How are AADAC services organized?

- AADAC provides a comprehensive network of services in communities across the province.
- AADAC area offices and urban clinics provide prevention and treatment services for people and families concerned about substance use and gambling.
- Detoxification centres provide a safe environment for withdrawal from alcohol and other drugs.
- Residential treatment facilities, including the Business and Industry Clinic, provide specialized intensive programs within a protective and supportive environment.
- Youth treatment centres provide specialized intensive day treatment programs with residential support, residential detoxification programs, and residential treatment programs in urban and wilderness settings.



- Funded agencies and programs expand the scope and reach of AADAC's services.

What services does AADAC offer?

- AADAC and its funded agencies and programs offer a range of treatment services, including detoxification and shelter; assessment and referral; individual, family and group counselling; day and residential treatment; methadone maintenance treatment; and specialized services for adolescents, women and Aboriginal people.
- AADAC services are extensive. In 2006/2007, 37,648 clients received treatment and about 126,573 people attended prevention activities or receive information from AADAC.
- AADAC services are accessible. With a province-wide network of programs, Albertans have access to information, prevention, and treatment services in the communities where they live and work.
- AADAC treatment is effective. Ongoing monitoring of treatment outcomes shows that the majority of clients are satisfied with the services they receive, and a majority of clients report that they are abstinent or improved following treatment.
- AADAC services provide a good return on investment. Extensive North American studies demonstrate the value of specialized addiction services as a cost-effective and holistic alternative to hospital care.

What is Alcoholics Anonymous?

- Alcoholics Anonymous is a fellowship of people who meet to deal with alcohol problems.
- The program consists of meetings at which members share experiences and help each other to maintain sobriety.

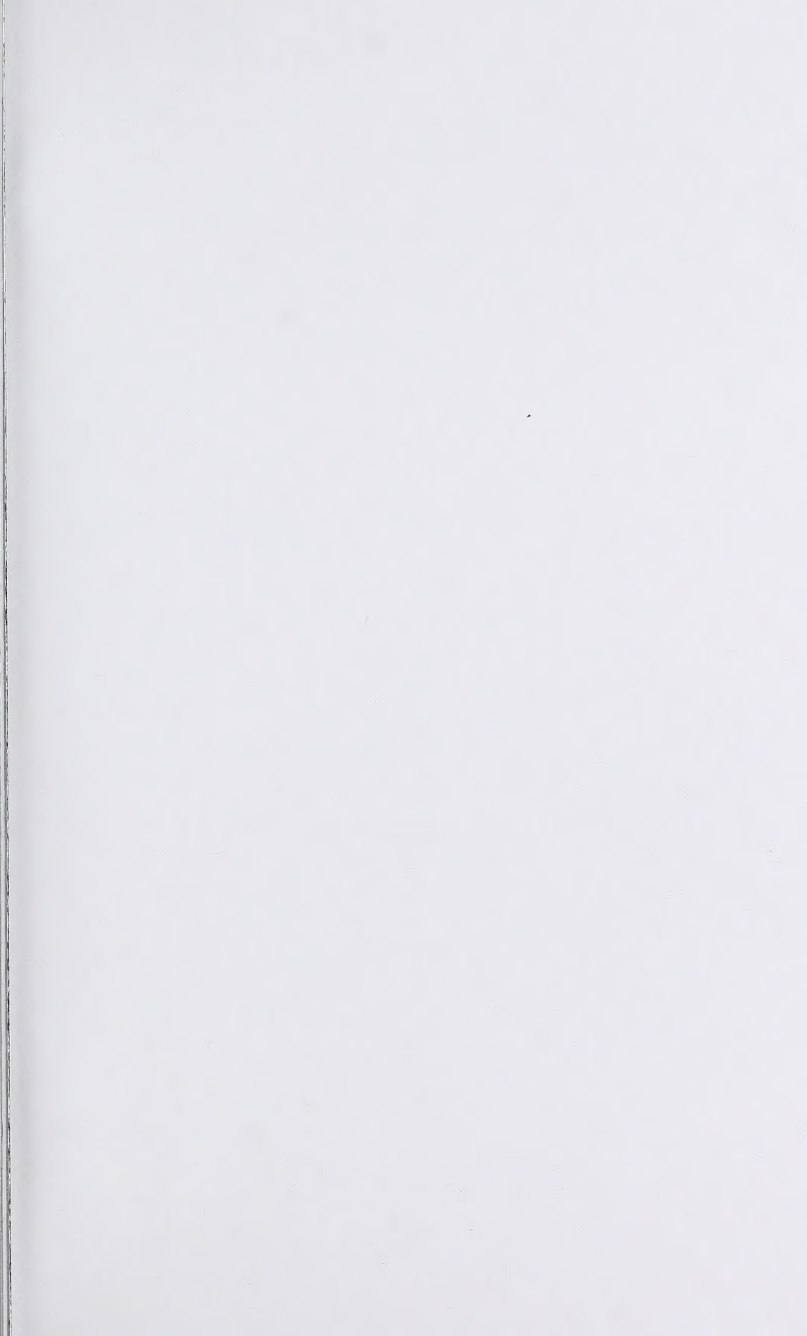
- Alcoholics Anonymous is not associated with any other political, social, or religious organization. It is supported through voluntary member contributions.

Is abstinence the only answer?

- Traditionally, total abstinence was presumed a necessary condition for successful treatment of alcohol and other drug problems. For many, it is still the most appropriate goal.
- More recent studies suggest that some people with alcohol or gambling problems, particularly those in the earlier stages, can successfully return to controlled social drinking or gambling.
- AADAC recognizes that not all clients will choose abstinence as a goal. Treatment and prevention services are focused on helping clients and their families do whatever they can to prevent and reduce the harm that substance use and gambling problems may be causing in their lives.

For further information, contact your local AADAC office or visit our website at aadac.com







LIBRARY AND ARCHIVES CANADA
Bibliothèque et Archives Canada



3 3286 53931441 5

AADAC

ALBERTA ALCOHOL AND
DRUG ABUSE COMMISSION

For more information, contact your local AADAC office,
call 1-866-33AADAC or visit our website at aadac.com